Minh Thang Cao

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Education

Carleton University   ***Ottawa, Ontario, Canada***
Bachelor of Computer Science, Co-operative Education   Sep 2019 – Mar 2024
CGPA: 3.77 (A+). On annual Dean's Honour Lists from 2019 to 2023.

Experience

Amazon - ***Software Engineer Intern***   ***May 2023 – Aug 2023***
- Built a product size preview on Amazon Seller Central's 1-by-1 item creation experience to help sellers minimize invalid inputs during product listing using React + Redux (TypeScript), Spring Framework (Java) and AWS S3
- Reduced product friction of item listing page on Seller Central by 3% for 2.5 million third-party sellers
- Decreased sellers' average time spent on listing page by 5% while increased input accuracy by 4% by implementing auto select feature for input dropdowns based on previously entered fields

Pattern - ***Software Engineer Intern***   ***May 2022 – Aug 2022***
- Developed scalable API services using Express.js + TypeScript + Docker integrated with AWS for data syncing which automates workforce recruitment and management processes (previously manual) by 90%
- Applying new design to the Flutter mobile app by creating an internal UI library with reusable widgets
- Set up automated database migration system on CI/CD pipeline with Docker and Terraform

Kinaxis - ***Software Engineer Intern***   ***May 2021 – Aug 2021***
- Implemented in C++ a cycle detection graph algorithm that combines variances of strongly connected components and cycles enumeration algorithms to enhanced supply planning outputs for over 200 global enterprises
- Improved the running time of the platform in cycles detection from more than 12 hours to 5 seconds on a customer data set, produced high-quality and more detailed cycle data compared to the previous version

CU Blueprint - ***Volunteer Software Developer***   ***Sep 2020 – Aug 2021***
Beneficent CRM 🔗
- Produced a CRM full-stack application for non-profit organization managing interest-free loans by allowing clients and hosts tracking applications, contracts and payments using React, Node.js, Express and MongoDB
- Helped accelerate and ease the manual application screening and loan distribution, reduced the process length by 10 times, saved over $263,000 of interest

Carleton University - ***Undergraduate Research***   ***May 2020 – Aug 2020***
Closest-pair Doubling 🔗
- Explored a divide-and-conquer algorithm that calculates the closest-pair distance of points on multi-dimensional spaces without knowing coordinates using the doubling dimension definition
- Developed from scratch with C++, analyzed and proved the algorithm's logarithmic running time in practice by analyzing the output data and successfully led the original research project to a conclusion

Projects

Connect 4 🔗   *JavaScript, React, HTML, CSS, Node.js, Express.js, Socket.IO, MongoDB*
Online real-time Connect 4 game that supports authentication, authorization, in-game chatting and ranking

Software-Defined Vehicle Safety System🔗   *C, QNX, Python, Matplotlib*
Real-time OS application that replicates anti-lock braking system and cruise control, utilizes multi-threading & RTOS scheduling; communicates with Python GUI through UDP server to simulate a car and plot its movements

Skills

Languages: Python, JavaScript, TypeScript, Java, C/C++, HTML, SQL
Technologies: React, Redux, Node.js, Express.js, Flask, Sring, CSS, MongoDB, Firebase, WebSockets, React Native, Flutter, Docker, Git, Linux, Matplotlib, AWS, QNX